



NEWS OF NORTHWEST CONTROL-LINE MODEL AVIATION

1073 Windemere Dr. NW, Salem, OR 97304

Editor: Mike Hazel

SEPTEMBER 1992

ISSUE # 101

In this, the first of our second hundred number of issues,
you will find.....

- * Updated Competition Standings
- * Contest Results for
NW Speed Champs, August 8&9
Jim Parsons Memorial Stuntathon August 8&9
Richland, Washington, August 1
- * Round & Round, by John Thompson
- * Fuel Tank stuff, by Tom Lay
- * Navy Carrier Notes, by Joe Just
- * Some other pretty good stuff.



If the box to the left is X'ed, this is your last issue.
Send in your renewals money promptly, to ensure continous
service. You are also less likely to forget!

Cockpit Chatter



• Notes from the
editor's desk
By Mike Hazel

PLEASE excuse what rough edges this issue of FLYING LINES may seem to have, and any typos and whoop-oos that you sharp eyed types might find. This issue is being rushed along in an effort to get out before the Raider Roundup. The publicity for that meet has been somewhat eleventh-hour, and some details have been somewhat tentative relating to that contest in the last couple of years. So we figure that getting out publicity, albeit almost twelvthe hour, might help a little, and can't hurt. ~~Hummm~~, I'm almost certain we had a spelling error in that last sentence, oh well. Anyhoo, this is being typed just before the trip to the print shop on Friday the 4th, and hopefully this issue will be in most everybody's hands by the 10th. Please come on out, and support this last big meet of the year. Speed fliers should note that their activity was included again this year.

This is probably old news to everybody by now, but Paul Walker was 1992's double crown Aerobatics winner. As you know, he grabbed first place at the AMA Nationals, and shortly followed up with that ever elusive win at the World Champs. Other World champs participants have felt that Paul was the best flier, and this year the judges scores came to that same reckoning. Congratulations, Paul.

For you swap shop and collector type people, there will be a Collecto in Albany, Oregon on September 19th. Ye olde editor will be there, looking for good deals, and trying to pass off old stuff as treasured relics. The new site this year is the South Albany High School, which will have lots of room for sellers and buyers to move about. (as opposed to some other swap shows). For more information, please call Rod Russell at 503-390-1022.

There is a new look coming to FLYING LINES. You will most likely notice the look and layout of this newsletter changing a bit starting next month. Ye olde editor is teaming up with a new partner, called a MacIntosh. As soon as I learn how to make the thing do what I want. The newsletter will take on a neater, and more cnsitent layout. It would also be nice if it made it less work!

Speaking of work, are there any other modelers out there in readerland who would like to give some effort and love back into the hobby? What am I speaking of? Well, we are still lacking event columnists for most competition aspects of our activity. I would like to see some contributors for Combat, Racing, Speed, and Aerobatics. The pay is cheap (a free subscription), but besides the fame, glory, and good feeling that you have helped, you too can experience the excitement of stepping out of your car upon arriving at a contest, only to be met with screaming throngs of fans and newsletter groupies dying for your autograph, or a piece of your clothing. Don't believe me? One way to find, and that's to volunteer to do some writing for FL. Nct sure of yourself? Think you don't have something to contribute? Don't sell yourself short. Talk to me, and I'll let you know how we make everyone look good.

Well, guess that's it for now. Keep your lines tight.

WASHINGTON STATE CONTROL LINE CHAMPIONSHIPS

AMA Sanctioned 'AA' Model Airplane Contest

The Seattle Skyraiders present:

RAIDER ROUND-UP '92

September 12th and 13th
Boeing Space Center
Kent, Washington

<i>Saturday Event Schedule</i>		<i>Sunday Event Schedule</i>	
9:00	Northwest Sport Race <i>(kitted profile + stock Fox .35 stunt)</i>	9:00	Precision Aerobatics <i>(Four PAMPA classes)</i>
10:00	Navy Carrier <i>(profile, .15 profile, Class I, II)</i>	9:00	Speed Record Ratio <i>(new rules in effect)</i>
10:00	NW Super Sport Race	12:00	Static Judging Profile & Sport Scale
10:00	Old Time Stunt <i>(pre-1952 design - GSCB rules)</i>	1:00	Balloon Bust
12:00	Fox .35 Combat <i>(any design + Fox .35 stunt)</i>	2:00	Profile & Sport Scale Flying
2:00	Nostalgia Stunt <i>(any design 25 years or older)</i>		
11:00	Flying Clown Race		

CONTEST DIRECTOR: Joe Dill, 22533 152nd Ave SE, Kent, WA 98042 - phone (206) 631-2367

Registration each day from 9:00am unit start of event.

Entry fees \$10.00 for 1st event, \$5.00 each additional event

AMA or MAAC membership required for all pilots/mechanics - applications available at contest site.

NW Competition Standings

Flying Lines' compilation of event placings by Northwest modelers competing in Northwest region contests

As of 8-1-92

OVERALL STUNT (10 contests, 65 entries)

1)	Darrel Harvin.....	23
2)	Bob Parker	17
3)	Don McClave	16
4)	Bob Emmett	14
5)	Barrie Shandel	13
6)	AJ Resinger	12
7)	Paul Walker	10.5
8)	Bobbie Graff (jr)	5
	Alice Royer	5
	Todd Ryan (jr)	5

OVERALL COMBAT (8 contests, 73 entries)

1)	Gary Byerly	43
2)	Jeff Rein	7
	Frank Boden	7
	Joe Campbell	7
	Mel Lyne	7
6)	Kevin Magnuson (sr)	6
	Russ Popel	6
8)	Norm McFadden	5
	Dick Salter	5
	Tom Strom	5
	Todd Ryan (jr)	5
	Troy Lyne	5

OVERALL RACING (22 contests, 124 entries)

1)	Joe Rice (sr)	49
2)	Ken Burgar	28
3)	Todd Ryan (jr)	27
4)	Jim Cameron	23
5)	Henry Hajdik	17
6)	Kevin Magnuson (sr)	13
7)	Tom Strom	12
8)	Joe Campbell	11
	Jeff Cleaver	11
10)	Rich McConnell	10
	Ron Hale	10

OLD TIME STUNT (3 contests, 20 entries)

1)	Barrie Shandel	10
2)	Don McClave	9
3)	Darrell Harvin	8
4)	AJ Resinger	6
5)	Bob Emmett	5
	Todd Ryan (jr)	5

PRECISION AERO'S (6 contests, 38 entries)

1)	Bob Parker	17
2)	Darrell Harvin	15
3)	Paul Walker	10.5
4)	AJ Resinger	6
5)	Bobbie Graff (jr)	5
	Alice Royer	5

FLYING CLOWN RACE (3 contests, 19 entries)

1)	Joe Rice (sr)	18
2)	Kevin Magnuson	13
3)	Jim Welch	9
4)	Ron Hale	8
5)	Todd Ryan (jr)	6

NW SPORT RACE (5 contests, 26 entries)

1)	Jim Cameron	12
2)	Ken Burgar	11
	Henry Hajdik	11
4)	Rich McConnell	6
5)	Joe Rice (sr)	5
	Todd Ryan (jr)	5
	Mel Lyne	5

BALLOON BUST (4 contests, 25 entries)

1)	Rich McConnell	10
2)	Dave Mullens	9
	Todd Ryan (jr)	9
4)	Angela Bell	6
5)	Wes Mullens (jr)	5
	Stephen Cox (jr)	5

Late Flash - The 1993 NATS Will Be Held In Lubbock, Texas
July 17 - 26

THE 1992 NORTHWEST CONTROL-LINE SPEED CHAMPIONSHIPS

August 8-9, Coquitlam, B.C.

by Mike Slessor NASS 146
Vancouver BC

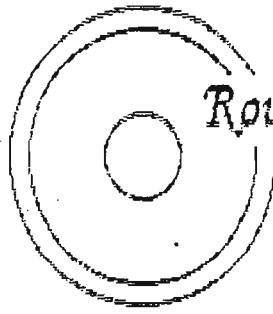
For the first time in its history, this contest was not held at the old Richmond, B.C. site, but instead was held at the beautiful Coquitlam site. The two fully-paved circles are surrounded by mountains and forest, which provides for a very pleasant backdrop for a weekend of circle-burning. Unfortunately, the planned weekend of flying was shortened to Sunday only, after the most torrential of downpours visited the area on Saturday. However, the inclement weather gave everyone the excuse to partake in an all-day bench racing session.

As was the case at last year's edition of this contest, the top positions in the overall Record Ratio contest were taken by non-Open flyers. The crew from the Tri-Cities, Washington (remember the '89 Nats) area cleaned up, with Joe Rice taking first overall with a mind-numbing 141% of the current Senior record in 21 Sport. Todd Ryan, also from the Tri-Cities, took second spot with 105% of the Junior 21 Sport record. Paul Gibeault snared the third position with a solid 99% of the Open F-40 record, which also earned him a new Canadian record for the class and the Northwest C/L Speed Championship trophy as the highest placing open contestant. Chuck Schuette, flying his asymmetric A ship, grabbed fourth spot by the narrowest of margins, 94.17% to the impressive 94.13% posted by Will Naemura in FAI against Carl Dodge's outstanding record.

The new fuel rules were the undoing of a number of the perennial winners of this contest. Loren Howard, though consistent as always, could not get the horses he needed out of his OS .65 with the cool 10% brew. Also, Jet ace Jerry Thomas, the defending NW Speed Champion, was unable to post a flight, despite much tinkering with metering jets and fuel system in an attempt to get a setting that would hold for an official clocking. As seen in the results below, several other speedsters competed, but it looks like just about everyone will need some more development time on the new juice.

1992 NW SPEED CHAMP: PAUL GIBEAULT; Calgary, Alta. (F-40, 149.82 MPH)

1. JOE RICE	Richland,WA	Sr. 21 Sport	127.61 MPH (141.3%)	\$40
2. TODD RYAN	Pasco,WA	Jr. 21 Sport	116.84 MPH (105.0%)	\$30
3. JOE RICE	Richland,WA	Sr. Class A	98.43 MPH (100.0%)	
4. PAUL GIBEAULT	Calgary,Alta	Open F-40	149.82 MPH (99.34%)	\$20
5. CHUCK SCHUETTE	Vancouver,WA	Open Class A	141.90 MPH (94.17%)	\$10
6. WILL NAEMURA	Portland,OR	Open F2A	173.41 MPH (94.13%)	\$ 5
7. LOREN HOWARD	Vancouver,WA	Open Class D	168.63 MPH (92.97%)	
8. CHUCK SCHUETTE	Vancouver,WA	Open 21 Sport	139.91 MPH (88.23%)	
9. PAUL GIBEAULT	Calgary,Alta	Open F2A	162.38 MPH (88.14%)	
10. ROY BEERS	Ariel,WA	Open Class D	157.42 MPH (86.79%)	
11. TODD RYAN	Pasco,WA	Jr. 1/2A PP	55.20 MPH (58.64%)	
12. JERRY THOMAS	Puyallap,WA	Open Jet Speed	Attempt (2)	
13. RON SALO	Richmond,BC	Open Class B	Attempt (1)	
14. SCOTT NEWKIRK	Edmonds,WA	Open F2A	N/T	
15. SCOTT NEWKIRK	Edmonds,WA	Open 21 Sport	N/T	



Round and Round

The Control-Line
modeler at large

By John Thompson

*"What can you conceive more silly,
and extravagant than to suppose a man
racking his brains, and studying night
and day how to fly?"*

— William Law

A Serious Call to a Devout and Holy Life (1728)

=====

W e take you now to the winter of 1978.

The year 1977 had been a big year for control-line model aviation. It might be described, in fact, as a "burnout" year. Then followed 1978, a year in which activity in every event dropped off. Formerly active clubs disappeared from sight. There were few contests, and those were poorly organized. OL enthusiasts were worried. Something had to be done.

There were discussions. Two ideas emerged.

1. We needed something to keep us busy over the winter, so people didn't drift away from the hobby. Out of this idea grew the 1978-79 Northwest Sport Race Drizzle Circuit, a five-contest series of racing events. The circuit lasted 11 years.

2. We needed some form of communications network, so that people were aware of activity in other parts of the region. There was strength in numbers, we reasoned, and we had to keep the numbers together. Thus was born *Flying Lines*.

It's still going, and has been, except for a brief hiatus — about two years, in which a new editor was chosen but was unable to perform the duties. You have in your hands issue No. 101.

There were only a handful of subscribers for issue No. 1, but at its peak, *FL* had a worldwide circulation. In its most recent form, the publication has been limited to Northwest distribution primarily to prevent editor burnout, but it is still a respected publication.

For those who missed it, issue No. 1 was timed to appear at the 1979 Northwest Regional Control Line Championships.

It contained, on its front page, a report on the first Drizzle Circuit. There were a total of 32 competitors in that first season, flying the single main event, old-rules Northwest Sport Race (sort of a mix of current NWSR and Super Sport).

Mike Hazel was the first series champion, using a a Fox .36 plain bearing engine. John Thompson was second with the emerging K&B .35/Ringmaster combination and captured the feature race record at 7:53; and Bill Varner, finishing fourth, had the fast heat at 3:55.

The rest of the series finishers were, in order (take a stroll down memory lane!) Tracy Brazzle, Jim Cameron, John Simpson, Richard Simpson, Paul Wallace, Gary Stevens, Russ Wilcoxson, Fred Williams, Gene Pape, Dave Green, Bill Yall, Tim Hancock, Jack Blankenship, Tom Sisson, David McFadden, David Ireland, Dan Rutherford, Alan Stewart, Keith Iwanski, Chris Genna, Norm McFadden, Niels Madsen, Ken Ferris, Buzz Wilson, Brian Scoones, John Hammersly, Dave Gardener and Loren Howard.

That first issue of *FL* also reported on the first "fuel crisis" in model aviation, when Nitromethane supposedly was unavailable. Well, it turned out that nitro wasn't unavailable after all, but prices stayed up anyway for quite a while. Sound familiar?

Contests on the schedule as of that May included a combat and mouse race contest in Redmond, Wash., Race Time '79 in Eugene, Ore., the Boeing Management Association Scholarship contest in Kent, Wash., the Clambash in Astoria, Ore., and the Portland Aeroliners annual Control Line Classic, the RatBash in Eugene, and the Bladder Grabber in October in Redmond.

As it does now, *FL* tried to cover every aspect of OL model aviation, signing up regular columnist for each event. There were the beginnings of standings and records, items which have continued to capture reader interest.

By the time it was handed from the first editor, John Thompson, to Mike Hazel, *FL* regularly surpassed 20 pages and had become too much work for any team of volunteers. Mike scaled it down to a more reasonable size, and scaled it down further in its latest version, to assure that it will continue publication.

But *FZ* remains committed to the same purposes — to provide an information network that helps keep CL modelers active and informed.

One thing that has changed somewhat is the level of input from the fliers in general. The newsletter is still looking for regular columnists on a variety of topics — we'd like to have one for each discipline (racing, speed, stunt, etc). We'd also like to see an exchange of ideas via letters, technical articles, etc.

Flying Lines is your newsletter, not that of the editor and staff. Your participation is urged.

Along those same lines, I've been hinting for some time that the Nitroholics would do the bulk of the organizational work for a resurrection of the Drizzle Circuit, if we hear some input on what level of participation there would be and what kind of events you'd like.

We haven't yet had that input and the DC won't happen if we don't get it. Let's hear from you!

Another thing that helped save CL modeling in the Northwest in the late 1970s and early 1980s — and make it a nationally recognized hotbed of activity — was that a great many fliers who had for a long time enjoyed the benefits of the hobby through participation as competitors decided to pitch in and take over some of the work of the hobby. It appears once again to be a time when all of us need to re-examine our activity level and look for ways we can "give something back" to the hobby.

Richland, Washington

August 1, 1992

Old Time Stunt

Entrant	Points
1. Todd Ryan	212
2. David Thompson	201
3. Joe Just	198
4. Bill Tucker	186
5. Ron Hale	154

N.W. Sport Race

Entrant	Time
1. Todd Ryan	10:45:94
2. Joe Rice	11:54:78
3. Ron Hale	22:47:00

Flying Clown

Entrant	Lap Total
1. Joe Rice	199
2. Todd Ryan	144
3. Scott Anderson	40

As this is written, our thoughts are just beginning to turn to the task of getting ready for the Raider Roundup in Seattle, one of our favorite contests. Alas, work this year has prevented us from making as many meets as we'd like, particularly those fine meets in the Richland area. Hate to miss those racing heats!

But we did recently attend the Jim Parsons Memorial Stuntathon, and it was an excellent, relaxing two days of stunt and nostalgia.

The Seattle crew puts on a fine stunt contest, and the contestants had the added pleasure this year of greeting the triumphant returning world champion, Paul Walker, fresh from his victory in Czechoslovakia. Paul served as a judge at the Stuntathon.

Here are the results of the 1992 event:

Old-Time Stunt (7 entries): 1. Don McClave, 307.75. 2. Alan Resinger, 295. 3. Darrell Harvin, 270. Bob Emmett, 269.5

Nostalgia Stunt (5 entries): 1. Don McClave, 499. 2. Bob Emmett, 439. 3. Chris Cox, 411. 4. Dick McConnell, 311.5.

Expert Precision Aerobatics (4 entries): 1. Alan Resinger, 502. 2. Randy Schultz, 490. 3. Don McClave, 485. 4. Lee Uberbacher, 444.

Advanced Precision Aerobatics (6 entries): 1. Darrell Harvin, 447.5. 2. Bob Parker, 442. 3. Bob Emmett, 430.5. 4. Chris Cox, 373.5.

Beginner Precision Aerobatics (2 entries): 1. John Leidle, 194. 2. Jim Sofra, 142.

Share your ideas with other modelers. Write to *Flying Lines* in care of the editor, or to Round & Round via John Thompson, 1145 Birch Ave., Cottage Grove, OR 97424.

OCTOBER 3/4 -----RICHLAND, WASHINGTON-----

Events: Old Time Stunt, Profile Carrier, .15 Carrier, Carrier I & II combined, Flying Clown Race, Class I Mouse Race, NW Super Sport Race. Site: Horn Rapids Athletic Complex. Contact: Joe Just, 709 Crescent, Sunnyside, WA 98944 (509) 837-5983 Sponsor: Columbia Basin Balsa Bashers.

DEAR MIKE,

SINCE THE BLADDER GRABBER, JEFF RAINES, TWEED MANLEY, AND MYSELF HAVE BEEN EXPERIMENTING WITH 80 MILE AN HOUR COMBAT. WE HAD A COUPLE OBJECTIVES WITH OUR EXPERIMENTATION. THE FIRST IS TO HAVE A LOT OF FUN FLYING COMBAT, AND I CAN REPORT THIS OBJECTIVE HAS NOT ONLY BEEN MET BUT EXCEEDED OUR EXPECTATIONS. THE SECOND OBJECTIVE WAS TO IMPROVE OUR COMBAT SKILLS AND THIS TO IS HAPPENING. THE THIRD OBJECTIVE WAS TO LEARN ABOUT 80 MILE AN HOUR COMBAT AND TO SEE WHAT TYPE OF EQUIPMENT WORKS AND DOES NOT WORK.

THE AIRPLANE IS NOT CRITICAL OTHER THAN THE OBVIOUS ADVANTAGES OF FOAM LEADING EDGES OVER Balsa WOOD. BECAUSE THE SPEEDS ARE LOW, IT IS AN OPPORTUNITY TO CLEANOUT ALL THE OLD EQUIPMENT AS WELL AS TAKE SOME OF THOSE OLD CRASHED FAST PLANES AND DO SOME CREATIVE RECYCLING. I HAVE BEEN USING NEMESIS, SHOULD TELL YOU HOW OLD SOME OF THE STUFF IS IN MY GARAGE. WE HAVE FOUND THAT ENGINES WITH COMPRESSION ARE AN ADVANTAGE ESPECIALLY TO OUR ARMS. BOTH JEFF AND MYSELF HAVE BEEN USING SUPER TIGERS. JEFF WAS USING A HIGHLY RESTRICTED MARK SIX; HOWEVER THIS DID NOT WORK VERY WELL. IT WAS VERY SENSITIVE TO NEEDLE SETTINGS AND HARD TO RESTART. TWEED IS USING FOX MARK FOURS. I HAVE ALSO BEEN USING MARK THREES. I TALKED WITH PHIL GRANDERSON ABOUT WHAT HE AND WILLIE WERE USING A COUPLE OF YEARS AGO, AND THEY WERE USING OS MAX 35. I HAVE ORDERED ONE AND WILL GIVE YOU A REPORT IF TOWER HOBBIES EVER SHIPS IT. WE HAVE BEEN USING 10 PERCENT FUEL, AND ARE JUST STARTING TO PLAY WITH 5 PERCENT. ALL FUEL SYSTEMS ARE USING BLADDERS. WE HAVE PLAYED WITH A VARIETY OF PROPS. THESE HAVE RANGED FROM TAI PANS TO APC,. THREE BLADES TO TWO BLADES, AND A VARIETY OF DIAMETERS AND PITCHES. THE BIGGEST SPEED REDUCTION COMES (AROUND 8 MPH) FROM PUTTING THE PROP ON BACKWARDS.

I HAVE ENCLOSED A FULL SIZE TEMPLATE FOR THE CHICKEN STICK THAT DIRTY DAN, RON SCOONES, AND MY SELF USE. A FEW COMMENTS ON ASSEMBLY. FIRST YOU SHOULD CUT ONE, A BLANK THAT IS, OUT OF PAPER AND CHECK THE SIZE TO MAKE SURE YOU ARE COMFORTABLE WITH THE FIT. MAKE SURE YOU FOLD IT TO ALLOW FOR WHETHER YOU ARE RIGHT HANDED OR LEFT HANDED. TRACE THE TEMPLATE ONTO A PIECE 1/4 INCH THICK PIECE OF LEATHER (YOU CAN USE A THINNER PIECE IF YOU HAVE A HIGHER TOLERANCE FOR PAIN) AND THEN CUT OUT THE BLANK. I USED A SCROLL SAW. WHERE THE CHICKEN STICK COMES TOGETHER EPOXY AND CLAMP UNTIL DRY. NOW THE HARD PART, FIND A SHOE SHOP THAT WILL STITCH IT FOR YOU. INITIALLY IT WILL BE VERY STIFF, YOU CAN ACCELERATE THE SOFTENING PROCESS BY SOAKING IT IN FUEL.

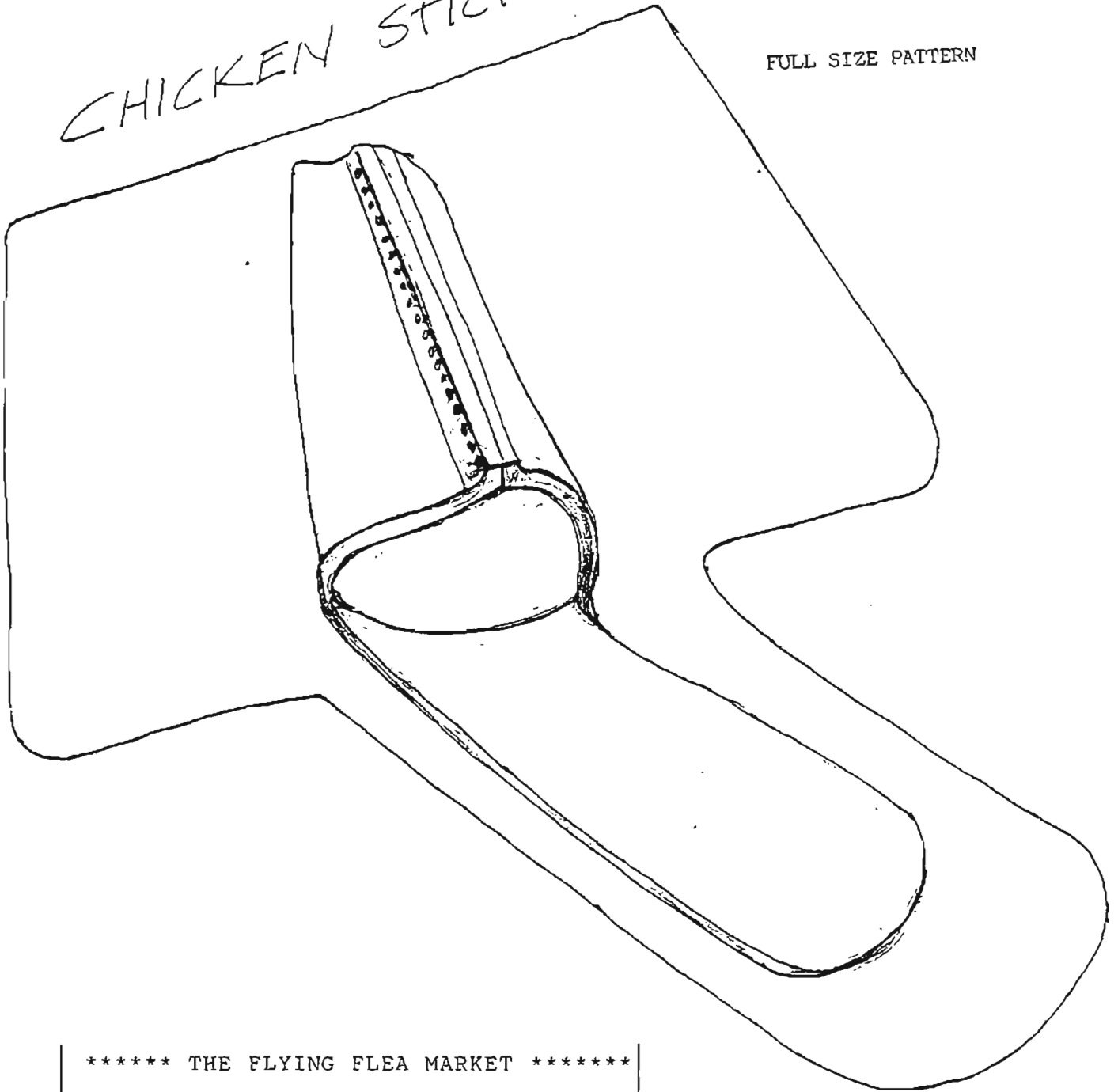
BUZZ WILSON

ED.- Thanks for the update on the Combat scene. We don't get a lot of input from you streamer chaser types. (HINT! HINT!) The concept of 80 MPH Combat sounds like a good one, with the ability to use most any craft and power, just keep it slowed down. Probably not much faster than Fox 35 Combat. (?)

The flipping thong is "deja vu all over again". For those of you who have not tried these, they are great. John Thompson made a batch of them a number of years ago, and called them "Neater Beaters". Don't know who originally devised the design, but first saw them used in Northern Washington about 1970.

CHICKEN STICK

FULL SIZE PATTERN



***** THE FLYING FLEA MARKET *****

FOR SALE: All American Senior kit. call
John Thompson (503) 942-7324

FOR SALE OR TRADE: Old Berkley Bearcat kit
for scale/carrier. Fairly priced call
Terry Miller (503) 672-0554

FOR SALE; Quality composite competition
propellers. Send for list. New sizes
available for $\frac{1}{2}$ A, A, Formula 40, and more.
Mike Hazel, 1073 Windemere Drive NW,
Salem, Oregon 97304

SUBSCRIBERS: This space is for you.

9

MOTORVATION

By Tom Lay

Every major component of our Stunt aircraft has changed dramatically over the past 20 years with the exception of the fuel tank! (NOTE: The fuel tank sketches in this article are the same sketches that I sent to Wynn Paul in the mid-70's for publication in Stunt News.)

Shown are three different type of Uniflow metal tanks which have proven to work well for our needs. REMEMBER THE FUEL TANK CAN BE YOU BEST FRIEND OR YOUR WORST ENEMY!!!

I used .010 Easy Solder tin sheet #245 from K&S Engineering for all metal tanks. If you use the thinner .005 shim-stock in order to have lighter tank it will usually flex come from the pulsation of the muffler pressure to the tank and the vibration of the engine. Remember flexing = foaming and foaming = erratic engine runs.

I use E-Z bend brass tubing because it is easily bent and does not crystalize as quickly as does copper tubing.

I also use Stay-Brite silver solder for all tanks, even though it is heavier. This brings up another point. A tank built from .010 vs. .005 tin and silver solder vs. regular solder usually weighs about 1/2 oz. more but I'll give up the 1/2 oz. difference gladly in favor of consistent engine when started will draw fuel pretty until the engine runs and no leaks, which always seem to occur at the most embarrassing moments like at the NATS etc. The three sketches are not clear enough as copied in Stunt News send me a S.A.S.E. at my T&L address which is listed in this issue and I will send you a full size in place copy.

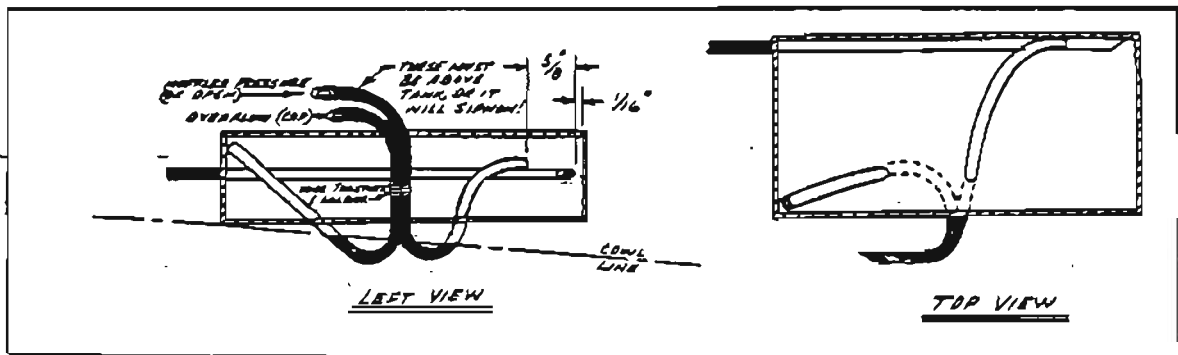
Uniflows #1 and #2 are for full bodied stunters and are usually held in place with silicon sealant. Uniflow #3 is for Profile stunters and is held in place with four J-BOLTS screwed into the side of the fuselage doubler with a sheet of 1/4" thick semi-soft foam rubber bands holding the tank to the airplane. This system will absorb most of the vibration and eliminate most of the foaming of the fuel which normally plagues a profile airplane.

TROUBLE-SHOOTING A FUEL TANK.

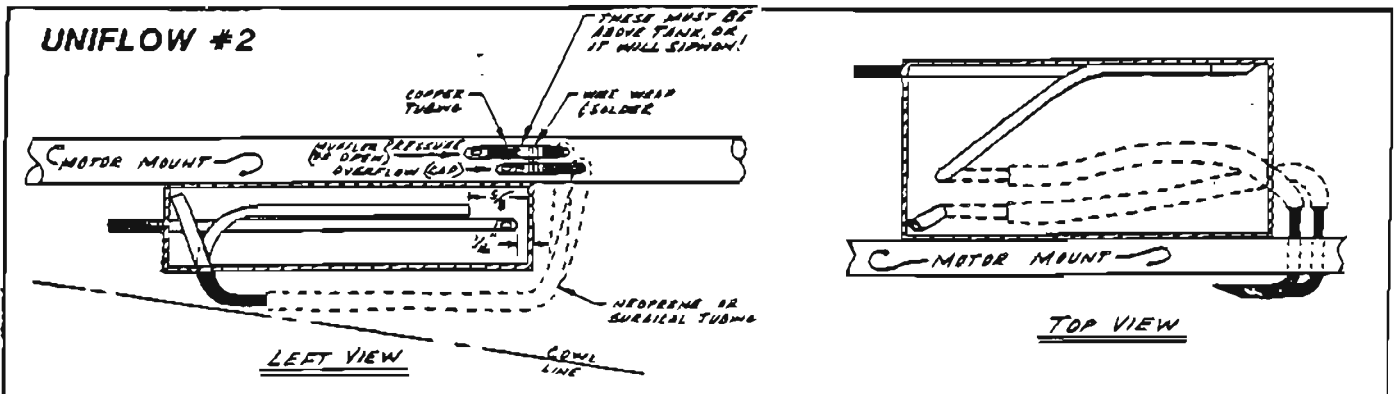
1. Remember a worn out engine will not make adequate crankcase pressure which is required for consistent fuel draw. Sometime a worn engine when first started will draw fuel pretty well until the engine warms up and starts losing compression and this usually results in the engine going lean in the second half of the flight.
2. Always use a fuel filter! Not only does it filter the fuel but it equalizes the flow of fuel to the engine. The larger volume end of the filter should go towards the fuel.

3. IN THE EVENT OF A SUSPICIOUS FUEL TANK:
- A. Try on flight with someone else's fuel. If that is not it go to "B."
 - B. First remove the fuel tank from the airplane and pressure check the entire assembly under water with a syringe to check for leaks. If there is a leak re-solder the leaking area and re-check it under water for leaks. If there are no more air leaks proceed to "C."
 - C: Remove the back cover of the fuel tank and visually check all three tubes for splits in the tubing which are caused by fuel, air, and vibration causing crystallization and splitting. If you see no visual splits you must scrub your tank surgically clean with acetone you will sometimes find that a film of "flux" (resembling a thin layer of cotton) will build up on your filter screen. It can be very deceiving because when you look through the filter it looks clean even though it is blocked by the cotton-like film. Always remove the screen and wipe both sides to be sure!! From July/Aug Stunt News.

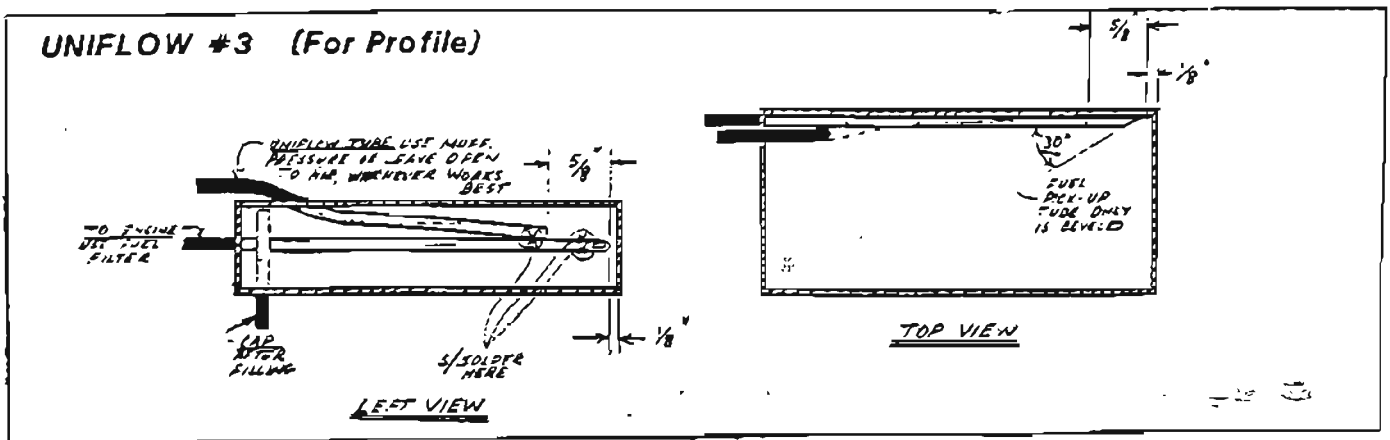
UNIFLOW #1



UNIFLOW #2



UNIFLOW #3 (For Profile)



NAVY CARRIER NOTES, by Joe Just

A little something different this time around (no pun intended) concerning Carrier flying. No pointers, no philosophy, and no crummy drawings, simply an invitation to come on over to Eastern Washington this October 3rd and 4th, for the best Carrier meet this year. I'm talking about the Desert Carrier Bash III.

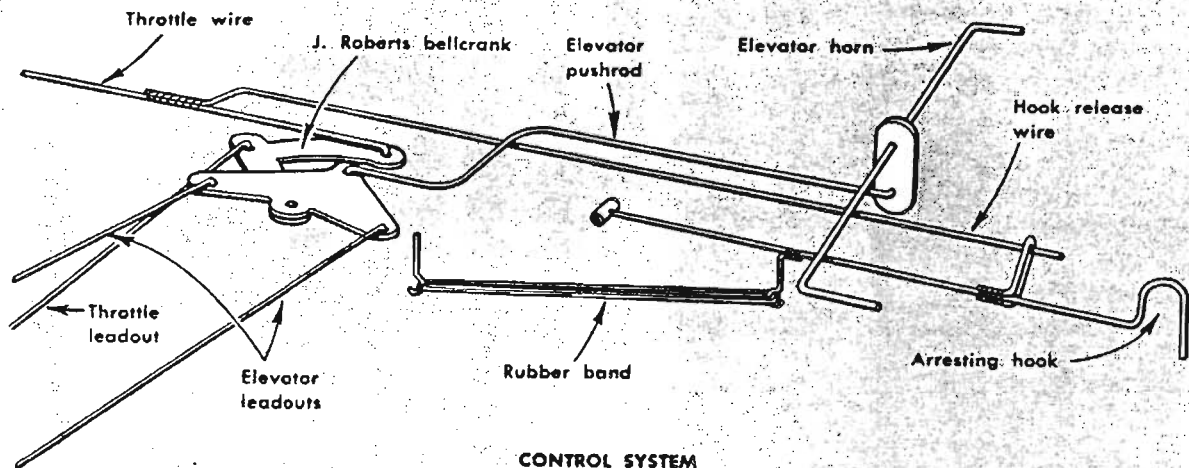
For the previous two falls, the Columbia Basin Balsa Bashers have been sponsoring this meet, and it has grown from a small idea into one of the best Carrier meets in the West. We offer a day and a half of continuous Carrier flying. All classes are offered, .15, Profile, and Class I & II combined. So what's the big deal you say?

We fly off of a full sized deck, the one that the AMA gave us in 1989, over grass in a beautiful park. The thing that really makes this meet different is that we waive the three attempts for two officials flight rule in the AMA rule book. This year, we will allow you to fly each plane for six attempts and will use your best score for your final position in that event. Further, you are allowed to enter as many planes as you wish in each event. All we ask is that you don't hog the deck. Get in line and fly as much as you can in rotation. There is a special entry fee for this Carrier contest \$5.00 per plane, with 50% of the entry fee given back on a prorated basis in each class.

The C.B.B.B. also gives out trophies to third place in all events, and the big draw for a lot of guys (ask John Hall about this part) is the final event of the weekend, or prize drawing, where each contest entrant is eligible to draw for some very, very, nice prizes. (right, John?) Even if you place last in any of the events over the weekend, you just might go home with a brand new Fox .35, for example!

Along with the Carrier events which run from 9AM to 1PM Saturday, and from 9AM to 4PM on Sunday, we also offer a full slate of CL racing on Saturday, and our brand of Old Time Stunt on Sunday. Our version of OTS is very simple, we fly the OTS pattern with airplanes that are eligible for OTS, or, any other profile. For example, you could enter your Twister, and it would be eligible, but would not get the 10 points that an unflapped profile like the Ringmaster would. Sounds a little confusing, but read it again and you'll get it!

Please come prepared for a great time, and you can fly Carrier either Day or both days, until you use up the six flights for each plane. For more info give me a call at 509-837-5983 evenings, or at 509-837-2299 weekend evenings (work #), or, drop me a line at 709 Crescent, Sunnyside, WA 98944. See you there!!!!!!



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